



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 5

77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

JUN 11 2010

REPLY TO THE ATTENTION OF:

WW-16J

U.S. Army Corps of Engineers, Louisville District  
ATTN: Sam Werner, CELRL-OP-FW  
P.O. Box 489  
Newburgh, Indiana 47629-0489

Subject: Public Notice LRL-2007-1379-sew, Little Sandy Coal Company, Hilsmeier Mine

Dear Mr. Werner:

The U.S. Environmental Protection Agency has considered Little Sandy Coal Company Inc.'s (LSCC) April 23, 2010 response to our Public Notice comments regarding the Hilsmeier mine, submitted to the your office on March 31, 2010. EPA offers the following comments and requests:

*Permit application*

EPA received the applicant's mining operations map from the Army Corps of Engineers on June 7, 2010; however, the applicant failed to provide information on (1) the exact acreage of previously mined areas within the project area, and (2) the sources of hydrology such as springs and seeps and connections to existing waters. LSCC stated in their response that the mine operations map would identify the type of impacts proposed to jurisdictional waters. However, this information was not easily identifiable for each stream reach due to inadequate map detail. Furthermore, upon review of the mining operations map and jurisdictional waters map, we found that a number of stream reaches, such as S9F, S9D1, S9D2, S9D2A, S10, S10D, S10H2-1, S11, and S11I, will be partially impacted, which is inconsistent with the permit application.

EPA requests LSCC include the type of impact proposed for each specified reach (ex. mine-through, haul road crossing, pond construction, etc.). This could be shown as additional columns in the stream summary table on pages 285-288 of the 404 permit application. LSCC must provide the requested information and address the abovementioned inadequacies and inconsistencies in order to assist the Agencies in appropriately evaluating the project under the 404(b)(1) Guidelines.

*Avoidance and Minimization*

LSCC responded to EPA's concerns about impacts to midstream reaches.

“Following mining and land stabilization, hydrology will be reestablished and streams restored. The discharge end of the avoided streams will be routed, depending on the mining phase to a basin or down-gradient connecting streams. In post restoration the mitigated streams and avoided streams will be reconnected and allowed to develop as a dynamic equilibrium.”

EPA expects that the post mining stream network as a whole must adequately convey drainage from the post-mining watershed with minimal erosion and destabilization of the stream channels. Again, EPA recommends the applicant provide further detail regarding how avoided/minimized mid-stream reaches will be protected both during mining and post mining to ensure they will not further degrade downstream reaches. LSCC should provide information on (1) how they will minimize soil/channel erosion potential to avoided stream reaches, (2) how they will ensure that hydrology can be reestablished, (3) the best management practice techniques that will be implemented during mining, (4) the impact of not establishing riparian buffers on avoided/minimized reaches, and (5) how degraded avoided/minimized stream reaches might effect successful establishment of downstream re-created reaches.

EPA believes that LSCC has not avoided and minimized impacts to streams and wetlands to the maximum extent practicable. The applicant stated that “In regard to seeps and springs to the extent they exist, the[y] will be unavoidably impacted during the recovery of coal.” No map was provided detailing the sources of hydrology and connections to existing waters in relation to mining activities; therefore, it is difficult to determine if, in fact, appropriate avoidance and minimization has occurred. EPA requests the following additional hydrological information for this project area:

Groundwater Information (including the Hydrologic Analyses)  
Reclamation Plan – Protection of Hydrologic Balance  
Surface Water Monitoring Plan  
Areas Unsuitable for Mining

### *Ecological Performance Standards*

The 2008 Compensatory Mitigation Rule requires that every project mitigation plan contain performance standards as a way of assessing whether the project is achieving its objectives<sup>1</sup>. These performance standards must relate to the objective of the compensatory mitigation project in order to determine if the project meets the desired resource type and provides the expected functions<sup>2</sup>. The applicant needs to specify the ecological performance standards to be achieved in order to evaluate mitigation success.

In this case, LSCC applied Rosgen Level II and III physical habitat assessments to evaluate stream function. The applicant categorizes streams into three types (channels with compromised geomorphology, channels with slightly compromised geomorphology and channels with appropriate geomorphology). These categorizations are based on riparian zone size, bank erosion, channel aggradations/degradation and upstream impacts. Solely using

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<sup>1</sup> 40 CFR Part 230.04(c)

<sup>2</sup> 40 CFR Part 230.95(b)

Rosgen to determine the success of stream mitigation does not characterize the full ecological profile of the stream. As such, in our initial letter, we requested biological and water chemistry monitoring be conducted in addition to physical habitat assessments prior to, during and post mining.

In LSCC's response letter, they agreed to work with the U.S. Army Corps of Engineers (Corps) District Engineer in the determination of additional water quality sampling points in order to provide a more accurate assessment of stream condition within the area. Additionally, the applicant states that a bio-monitoring consultation was conducted with the Corps and a biological assessment was performed in June, 2009 for macroinvertebrates and fish. At a minimum, LSCC should detail the existing physical, biological and chemical conditions of all streams proposed to be impacted. If the physical or chemical condition (i.e. lack of water or pH) limits the existence of macroinvertebrates, the applicant should provide that information as a part of the biological monitoring. This will demonstrate how they will achieve improvement of water quality over existing conditions and create an ecological lift in the project area. EPA emphasizes that performance criteria for the streams need to be based on the best available science which can be measured or assessed in a practicable manner, using variables or measures of functional capacity described in functional assessment methodologies, measurements of hydrology or other aquatic resource characteristics (i.e. EPA Rapid Bioassessment Protocol). EPA requests the results of the June 2009 biological assessment, specific details on the sampling protocols implemented, and the ecological performance standards to be achieved for impacted streams.

### *Mitigation*

Headwater streams and their associated wetlands and riparian systems provide natural floodwater retention, improve water quality by diluting and filtering pollutants from surface water runoff, trap excess sediment, provide processed leaf litter and organic matter, which are important to sustaining biological communities in downstream waters and maintain biological diversity. In their response, the applicant maintains that all ephemeral streams on this site, if restored, would result in degradation of newly restored streams and "facilitate downstream erosion and flooding", however, the applicant does not provide substantial evidence to draw those conclusions. We agree with the applicant that ephemeral streams in the proposed project area, as with a majority of all the streams on site, have been degraded by anthropogenic abuse; however, that does not provide evidence for why all of them should not be restored.

As such, EPA requests the applicant seek additional stream mitigation opportunities to replace the aquatic functions and values that would be lost as a result of this project. The 2008 Mitigation Rule requires a minimum 1:1 linear foot compensation ratio<sup>3</sup>, especially if a functional assessment is not used. This will also account for temporal loss and the uncertainty in stream restoration. The current Mitigation Map only details 23,145 linear feet of mitigation for the currently proposed 27,839 linear feet of impacts. EPA requests a revised Mitigation Map with the details of the proposed mitigation (i.e. location, planform geometry, buffers and monitoring locations).

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<sup>3</sup> 40 CFR Part 230.9 f(2)

### *Contingency Plan, long-term management and financial assurances*

The applicant stated that the contingency plan will be updated to reflect an adaptive management plan as required by the 2008 Mitigation Rule<sup>4</sup>. LSCC is working with the current landowners and District Engineer to facilitate real estate instruments or other available mechanisms. EPA requests the permit not be issued until the contingency plan is finalized, appropriate real estate instruments have been established, and financial assurances are sufficient to cover any potential mitigation deficiencies. EPA requests the opportunity to review these management agreements once they are finalized in order to determine if they sufficiently ensure long term protection.

### *Cumulative Impact and Scope Analysis (CISA)*

LSCC stated that the CISA will be modified to discuss future potential impacts to the proposed project post mining. As a part of this analysis, LSCC must include current mining operations within the watershed in their discussions of cumulative impacts. Further analysis must include a discussion of water quality as it relates to the aquatic environment and its affect on human use characteristics, such as water supplies or fisheries. Impact assessments for wetlands should include direct and indirect impacts from previous and current actions as well as potential impacts from future actions as a result of changes in surface and groundwater hydrology. The analysis should also discuss the ecological effects associated with the loss of forest cover and increased forest fragmentation. EPA requests (1) the revised CISA to determine if cumulative impacts have been adequately addressed and (2) the post-mining land use.

### *Environmental Justice*

The U.S. Environmental Protection Agency is committed to protecting human health and the environment for everyone and ensuring that all people are treated fairly and given the opportunity to participate meaningfully in EPA's decision-making process. In addressing the existing statutory provisions set forth under Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," (February 11, 1994)<sup>5</sup> EPA continues to focus its attention on the adverse environmental and human health effects of federal actions, such as surface coal mine permitting under the Clean Water Act, on minority and low-income communities with the goal of achieving environmental protection as well as promoting nondiscrimination.

An EPA analysis which incorporates environmental, human health, compliance and social demographics metrics revealed a majority of the proposed Hilsmeier Mine site is located within a potential environmental justice area of concern. E.O. 12898 directs all federal agencies, to the greatest extent practicable, to conduct programs, policies, and activities in a manner that ensures (1) communities in and around the proposed site are not being subject to disproportionately high and adverse human health or environmental impacts and (2) such activities do not have the effect of excluding persons (including populations) from participation in, denying persons (including populations) the benefits of, or subjecting persons (including

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<sup>4</sup> 40 CFR Part 230.97(c)

<sup>5</sup> EPA Executive Order 12898; <http://www.epa.gov/fedreg/eo/eo12898.htm>

populations) to discrimination under, such programs, policies, and activities, because of their race, color, or national origin.

Several actions beneficial to addressing key environmental justice issues associated with surface coal mining include: conducting research, data collection, and analysis on direct, indirect and cumulative impacts; identifying patterns of subsistence consumption of fish and wildlife; and providing effective public participation and access to information<sup>6</sup>. In implementing the E.O., EPA requests the Corps consider that the proposed mine is within an Environmental Justice Area of Concern during the permitting process and steps be taken to avoid or mitigate any adverse human health or environmental effects this mine may have on low-income and minority populations.

EPA continues to object to the issuance of a permit for the project as proposed as it fails to comply with 404(b)(1) Guidelines and 2008 Compensatory Mitigation Rule. We appreciate that Little Sandy Coal Company has addressed some of our comments, however, there are still a number of unresolved issues that must be addressed and information that must be provided to the Corps before an informed permit decision can be made. Please notify us of Little Sandy Coal Company's response to these comments and any changes to the permit application. We appreciate the opportunity to provide additional comments on this public notice. Please contact Kerryann Weaver (312-353-9483) if you have any questions.

Sincerely,



Peter Swenson, Chief  
Watersheds & Wetlands Branch

cc: Marylou Poppa Renshaw, Chief  
Watershed Planning Branch  
Office of Water Quality  
Indiana Department of Environmental Management  
100 North Senate Avenue  
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Bloomington Ecological Services Field Office  
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<sup>6</sup>EPA April 1, 2010 Guidance: Improving EPA Review of Appalachian Surface Coal Mining under the Clean Water Act, National Environmental Policy Act and the Environmental Justice Executive Order.  
[http://www.epa.gov/owow/wetlands/guidance/pdf/appalachian\\_mntn\\_top\\_mining\\_detailed.pdf](http://www.epa.gov/owow/wetlands/guidance/pdf/appalachian_mntn_top_mining_detailed.pdf)